

## **IDENTIFIED RISK FACTORS WITH THE SUICIDAL FARMERS IN YAVATMAL DISTRICT OF VIDARBHA AND THEIR CORRELATES**

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### **ABSTRACT**

The present study was conducted in highly suicide hit Yavatmal districts of Vidarbha region of Maharashtra with exploratory design of social research. Total 60 victim's households were interviewed from 58 villages of 16 talukas of Yavatmal district during 2012-2013. The results revealed that that indebtedness (100.00%), deteriorated economic position (73.33%), crop failures (70.00%), alcohol use disorder (36.67%), responsibility of daughter/ sister's marriage, self health problem (26.67%), introvert personality (21.66%) are the most common risk factors identified with the selected victims. Amongst more than half, 51.67 per cent of the deceased farmers one of four risk factors were associated, while five to seven and eight to ten risk factors were associated with 43.33 and 5.00 per cent of the cases, respectively. The annual income, socio-economic status, land holding, crop grown, cropping intensity were observed to have negative significant co-relationship with the identified number of risk factors of suicide, whereas, crop failure, alcoholism and family dispute had a positive significant relationship with the identified number of risk factors of suicide. The value of the regression coefficient brings into light that the annual income was observed to have significant negative relationship with the identified number of risk factors of suicide, whereas, crop failure, alcoholism, victim's health and family dispute had shown positive and significant relationship with the identified number of risk factors of suicide. Hence appropriate policy measures have to be initiated in the study area for overall rural and economic development of the farmers.

**KEYWORDS:** Suicide, Victim, Households, Socio-Psycho Risk Factors, Correlation, Regression

### **INTRODUCTION**

“On average, one farmer commits suicide every 30 minutes in India,” (Sainath, 2007 and Center for Human Rights and Global Justice, 2011). Government of India had declared 31 districts as distressed district where the Prime Minister's special rehabilitation package was implemented. In these 31 districts, there are six districts of Vidarbha region of Maharashtra. (Anonymous, 2006). The Vidarbha region of the Maharashtra state is the epicenter of the farmers' suicide in the country. As per the government record in Vidarbha particularly in six districts namely Yavatmal, Amravati, Buldana, Washim, Akola and Wardha since 01, January 2001 to 15, December 2016, total 13,425 farmers committed suicide. Madan (1980), Singh (2005) and Kale (2008) pointed out that the causes of suicide are complex, as are the causes of any social phenomenon. Many factors combine to cause, one particular individual (and not another) to divert his aggression upon himself in the form of suicide. Phal (2000) stated that suicide is both a psychological and social phenomenon.

Durkheim (2002) also pointed out that the neurobiological and socio-economic dimensions of risk factors are responsible for committing suicide, but the intersection of these two sets, where the relative risk of committing suicide is higher. As per the Jacob (2006) in addition age-related psycho-social stresses and family or developmental issues might influence suicide risk. This is what we have been hearing from Vidarbha and other part of the country over the last sixteen years. This is now the researchable issue. This research paper deals with the specific objectives to study the risk factors associated with the deceased farmers and to study the relationship between selected characteristic of the deceased farmers with their identified risk factors in suicide hit Yavatmal district of Vidarbha.

## **MATERIAL AND METHODS**

Present research investigation was carried out in Yavatmal district of Maharashtra, where a percentage of farmer's suicide was found relatively more than other districts. The present study was based on Exploratory Design of Social Research. In this study, respondents were the households of the selected victim who committed suicide, during 1, January 2012 to 31, December 2012 and had declared as a legal victim by a district level committee headed by collectors of Yavatmal district, for allotting compensation of Rs. 1 lakh and had got Rs. 1 compensation. The time period 1<sup>st</sup> January to 31<sup>st</sup> December 2012 was selected purposively so as to match the similar farming condition with all victims.

Before sampling, researchers had contacted personally to the collector office of Yavatmal district and obtained the complete list of farmers who committed suicide during 1, January 2012 for 31, December 2012. In all there were 175 total suicide cases in Yavatmal district, out of which 98 cases were declared as illegal and 77 cases were declared as legal victims. From the list of 77 legal suicide cases, the researcher had selected 60 victims by a proportionate method of random sampling. It covers 58 villages and 16 *talukas* of Yavatmal district. Data were collected by personal interview method with the help of structural interview schedule. The interview was conducted in residence of the respondent so as to review the overall situation of the family by a researcher. In addition to personally interview, RRA (Rapid Rural Appraisal) technique, time line study for historical perspectives, observations, discussion with family members and discuss with key informants (*Police Patil, Sarpanch*, local leaders, other farmers of the village), reviewing victims actual record of institutional debts etc. were some important methods used for data collection.

## **RESULTS AND DISCUSSION**

### **Risk Factors of Suicide**

'Risk factors of suicide' is the dependent variable in the present research endeavor. In the present research study, it was assumed that the farmers who have committed suicide in Yavatmal district, their social and psychological web might not be sustainable. They may have many social and psychological problems. These problems had created an adverse impact on their well being and impair the quality of life. In this study, risk factors of suicide refer to the aggregation of different risk factors coexisted with an individual victim externally during last two years of suicide incidence. For every identified risk factor, one score was allotted. Thus, according to total risk factors identified with each victim, that indicate the total social-psychos risk factor score of victims and the same has been considered in the statistical analysis. Distribution of selected victims, according to their identified risk factors of suicide were presented in Table 1 and 2.

**Table 1: Distribution of Victims, according to Identified Risk Factors of Suicide**

Sr. No.	Risk Factors	Frequency	Percentage
1	Indebtedness	60	100.00
2	Economic position deteriorate	44	73.33
3	Crop failure (low yield)	42	70.00
4	Alcohol use disorder	22	36.67
5	Daughter/ Sister of marriageable age	22	36.66
6	Deceased having health problem	16	26.67
7	Introvertness	13	21.66
8	Disputes/quarrel with the family members	07	11.67
9	Behavioural change before incident	07	11.66
10	Effect of suicides in the adjoining villages	05	08.33
11	Family Health Problem	05	08.33
12	Disputes with the neighbours or others	03	05.00

The most common risk factors were 'indebtedness' that was found in 100.00 per cent deceased farmers. The increased indebtedness was the main cause of increasing anxiety among the majority of victims. This was followed by fall in economic position, which was noticed in 73.33 per cent deceased farmers. In nearly three fourth of the cases (70.00 per cent), crop failure was mentioned. Crop failure can lead to economic downfall and make it difficult to repay the existing loans of institutional and non-institutional sources. Crop failure leading to fall in economic position is quite natural. Due to the fall in economic position or heavy indebtedness, households are not able to take the additional loans for investing in crop cultivation; this can lead to a reduction in yield or total crop failure. The habit of alcohol use disorder was found in 36.67 per cent victims, who were followed by daughters/ sisters marriageable age found in 36.66 per cent victims. A socially important role of brother/ father is to get one's sister/daughter married.

The personal health problems of the deceased farmer were identified in 26.67 per cent of the cases. Introvert personality was identified in 21.66 per cent deceased farmers, as they did not discuss or share their problems with other family members, leading to more frustration. In 11.67 per cent victims, dispute/ quarrel was noticed by their family members due to domestic reasons. Behavioral changes before incident were found in 11.66 per cent victims. Effects of suicide in the adjoining villages were identified as additional risk factors in 8.33 per cent cases. This was because an individual who is facing some similar socio-economic problem can relate to the earlier incident.

In 8.33 per cent deceased farmers, their family members suffered from ill health. It added to frustration in those who were not able to fulfill the responsibility of taking care of a child. More expenses on health also lowered the economic position. In 5.00 per cent victims were found, having a dispute with the neighbours or others. Thus, the distribution of identified risk factors associated with an individual deceased farmer leads to conclude that over two third were co-existed with three common risk factors, these were increased indebtedness 100.00 percent, economic position deteriorate 73.33 per cent, and hopelessness due to crop failure 70.00 per cent. Similar finding were reported by Kale, 2008, Kale, 2011 and Kale, et.al 2012. Distribution of selected victims, according to an identified number of risk factors associated with their suicide is shown in Table 2.

**Table 2: Distribution of Victims, according to Number of Risk Factors of Suicide**

Sr. No.	Risk Factors	Respondents (N=60)	
		Frequency	Percentage
1	1-4	31	51.67
2	5-7	26	43.33
3	8-10	03	05.00
<b>Total</b>		<b>60</b>	<b>100.00</b>

It is apparent from the data in Table 2 with more than half, 51.67 per cent of the deceased farmers one to four risk factors were associated, while five to seven and eight to ten risk factors were associated with 43.33 and 5.00 per cent of the cases, respectively.

### Coefficient of Correlation and Regression

A closer look at the value of correlation coefficient brings into light that the personal characteristics, namely, age, education, caste, family size; family type of the victims did not show any significant relationship with the identified number of risk factors of suicide. The non-significant relationship of these variables indicates that these variables have no significant influence with the identified number of risk factors of suicide. As regards the socio-economic variables, livelihood sources were found to have non-significant relationship with the identified number of risk factors of suicide, whereas annual income and socio-economic status were observed to have a significant negative relationship with the identified number of risk factors of suicide at 0.05 level of probability. This shows that with the decrease in income, the risk factors of suicide with the victims are more prominent and hence presence of low income has been proven as one of the specified causes of suicide of farmers in Yavatmal district. It is also cleared from the above table that land holding was found to have significant negative relationship with the identified number of risk factors of suicide at 0.01 level of probability. This shows that, with a decrease in the land holding of the victims, there had been an increased in the risk factors of suicide among the victims.

**Table 3: Coefficient of Correlation and Coefficient of Regression of Selected Characteristics of the Victims with their Identified Number of Risk Factors of Suicide**

Sr. No.	Variable	Correlation Coefficient	Coefficient of Regression	
			Se ( b )	Std Error
<b>A</b>	<b>Personal</b>	<b>“r” Value</b>		
1	Age	0.243	0.01969	0.015
2	Education	-0.088	0.01664	0.051
3	Caste	-0.034	0.01375	0.081
4	Family Size	0.031	-0.0775	0.131
5	Family type	0.041	0.770	0.448
<b>B</b>	<b>Socio-Economic</b>			
6	Land Holding	-0.346**	-0.160	0.191
7	Livelihood Sources	0.053	-0.223	0.363
8	Annual Income	-0.321*	-0.0000194**	0.000
9	Socio-economic status	-0.260*	0.08071	0.149
<b>C</b>	<b>Situational</b>			
10	Irrigation facilities	-0.114	0.163	0.120
11	Indebtedness	-0.207	0.000002929	0.000
12	Crop Grown	-0.325*	-0.218	0.477
13	Cropping Intensity	-0.303*	0.0006010	0.009
14	Crop Failure	0.569**	0.529*	0.240

Sr. No.	Variable	Correlation Coefficient "r" Value	Coefficient of Regression	
			Se ( b )	Std Error
15	Victim Health	0.232	0.854*	0.406
16	Family Health	-0.043	0.163	0.576
17	Family Dispute	0.441**	0.949*	0.384
18	Alcoholism	0.493**	0.773**	0.214
	** Significant at 0.01 level of probability * Significant at 0.05 level of probability		R <sup>2</sup> value = 0.693 F value = 5.15** ** Significant at 0.01 level of probability * Significant at 0.05 level of probability	

In the group of situational characteristics, irrigation facilities, indebtedness, were non-significantly related to the identified number of risk factors of suicide, whereas crop failure was having the significant relationship with the identified number of risk factors of suicide at 0.01 level of probability. This indicates that, with an increase in crop failure, there had been an increase in risk factors of suicide. It is also clear that crop grown and cropping intensity were having the negatively significant relationship with the identified number of risk factors of suicide at 0.05 level of probability. This shows that with the decreased in the cropping pattern and cropping intensity of the victims, there had been an increased in the risk factors of suicide among the victims. In group of socio-psychological characteristics, alcoholism and family dispute had highly and positively significant relationship with the identified number of risk factors of suicide of the victims at 0.01 level of probability, whereas It is clear that, there is non-significant relationship of family health and victims' health with the with the identified number of risk factors of suicide. This indicates that as the alcoholism and, family dispute increased in family, there was increased in risk factors of suicides with the victims.

A closer look at the value of the regression coefficient brings into light that the personal characteristics, namely, age, education, caste, family size; family type of the victims did not show any significant relationship with the identified number of risk factors of suicide. The non-significant relationship of these variables indicates that these variables have no significant influence with the identified number of risk factors of suicide. As regards the socio-economic variables, landholding, livelihood sources and socioeconomic status were found to have non-significant relationship with the identified number of risk factors of suicide, whereas, annual income was observed to have a high negative significant relationship with the identified number of risk factors of suicide. This shows that with the decrease in income, the risk factors of suicide with the victims are more prominent and hence presence of low income has been proven as one of the specified causes of suicide of farmers in Yavatmal district.

In the group of situational characteristics, irrigation facilities, indebtedness, cropping intensity, crop grow to be non-significantly related to the identified number of risk factors of suicide, whereas, crop failure was having the significant relationship with the identified number of risk factors of suicide. This indicates that, with an increase in the chances of crop failure, there had been an increase in risk factors of suicide. In group of socio-psychological characteristics, alcoholism had highly and positively significant relationship with the identified number of risk factors of suicide of the victims at 0.01 level of probability, whereas, victim's health and family dispute had shown a positive and significant relationship at 0.05 level of probability. It is clear that, there is non-significant relationship of family health with the with the identified number of risk factors of suicide. This indicates that as the alcoholism, victims health and family dispute increased in family, there was increased in risk factors of suicides with the victims. Similar finding were reported by Kale, *et.al.*, 2010 and Kale *et.al.*, 2014.

All selected independent variable have shown the total 69.00 percent contribution in influencing the identified number of risk factors of suicide with the victim, as  $R^2$  value comes 0.693. R value was significant at 0.01 level of probability.

## CONCLUSIONS

The study revealed that indebtedness (100.00%), deteriorated economic position (73.33%), crop failures (70.00%), alcohol use disorder (36.67%), responsibility of daughter/ sister's marriage, self health problem (26.67%) an introvert personality (21.66%) are the most common risk factors identified with the selected victims. Amongst more than half, 51.67 per cent of the deceased farmers one of four risk factors were associated, while five to seven and eight to ten risk factors were associated with 43.33 and 5.00 per cent of the cases, respectively. The value of correlation coefficient brings into light that the annual income, socio-economic status, land holding, crop grown, cropping intensity were observed to have significant negative relationship with the identified number of risk factors of suicide, whereas, crop failure, alcoholism and family dispute had a positive significant relationship with the identified number of risk factors of suicide. The value of the regression coefficient brings into light that the annual income was observed to have a significant negative relationship with the identified number of risk factors of suicide, whereas, crop failure, alcoholism, victim's health and family dispute had shown positive and significant relationship with the identified number of risk factors of suicide. Hence appropriate policy measures have to be initiated in the study area for overall rural and economic development of the farmers.

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